

DESCRIPTIONS OF A NEW GENUS AND SIX NEW SPECIES OF NEARCTIC  
LESTREMIINAE (DIPTERA: CECIDOMYIIDAE)

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*Abstract.*—A new genus and six new species of Nearctic gall midges are described as new to science. These are: *Amedia floridana*, the only lestremiine totally lacking the medial vein; *Allarete bicornuta*, *Neurolyga longipes* and *Neurolyga pritchardi*, all three characterized by their remarkable male genitalia; *Heterogenella californica*, the first record of this genus in North America and the first species within the tribe Bryomyiini showing brachypterous females; and *Polyardis occulta*, representing a further case of brachyptery in the female within the genus.

*Key Words:* Diptera, Cecidomyiidae, Lestremiinae, Nearctic Region, new genus, new species

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The lestremiine gall midges in the National Museum of Natural History, Smithsonian Institution, Washington, D.C., contain a large number of unidentified or only generically determined specimens, mostly collected since the revisional work by Pritchard (1947a, 1947b, 1951). I studied this collection for a revision in progress of the Holarctic Lestremiinae. It contained six remarkable species described here as new to science. There is no further connection between these species, besides the fact that the material was sufficient enough in number of specimens and condition to describe the species with confidence. The most striking species, *Amedia floridana*, for which I erect a new genus, lacks the medial vein completely. *Allarete bicornuta* possibly supports the view that *Allarete* in its present composition is not a natural group of species. Two new species of *Neurolyga*, *longipes* and *pritchardi*, represent two morphological extremes among the species included in this genus. *Heterogenella californica*, the first record of this genus in North

America, is the first partially brachypterous species described within the tribe Bryomyiini. *Polyardis occulta* is brachypterous in the female and the third such case within *Polyardis*.

*Amedia* Jaschhof, new genus

Type-species: *Amedia floridana* Jaschhof, new species, by present designation.

Adult male (female unknown).—Wings without media;  $R_5$  reaching wing margin near wing apex; CuA unforked; CuP short; macrotrichia on both sides of  $R_5$ ; antennae with 14 flagellomeres, setae and sensoria of flagellomeres not in regular whorls; dorsal transverse bridge of gonocoxites with distinct apodemes, tergum 10 free, not fused with tergite 9.

Remarks.—Apart from the lacking the media, *Amedia* best fits the diagnostic characters of the Strobliellini, where it is placed. In the monotypic genera previously belonging to this tribe, *Strobliella* Kieffer and *Groveriella* Mamaev,  $M_{1+2}$  is unforked and obsolete distally, and a long  $M_{3+4}$  is present.

Compared with the forked  $M_{1+2}$  of the *Catotrichini*, *Lestremiini* and *Catochini*, this is an apomorphic character, as it is the complete loss of the medial vein in *Amedia*. It should be emphasized that this loss is not combined with a general reduction of wing size, veins and macrotrichia, that accompanies brachyptery in some *lestremiine* genera. I hesitate to erect a unique tribe for *Amedia*, because it is known only from a single species and only the male. In addition, our knowledge of the species-poor *Strobliellini* is insufficient as well. With the exception of the reduction of medial veins, *Amedia* is characterized by a combination of plesiomorphic character states. The flagellum resembles that of *Catotricha* species (tribe *Catotrichini*) in lacking regular whorls of setae or sensoria. The male terminalia, with the comb-like structure at the apex of the gonostylus and the trapezoidal tergite 9, reminds one of some species of *Catochini*.

**Etymology.**—The name *Amedia* is of feminine gender and means "without media" referring to the unique wing venation.

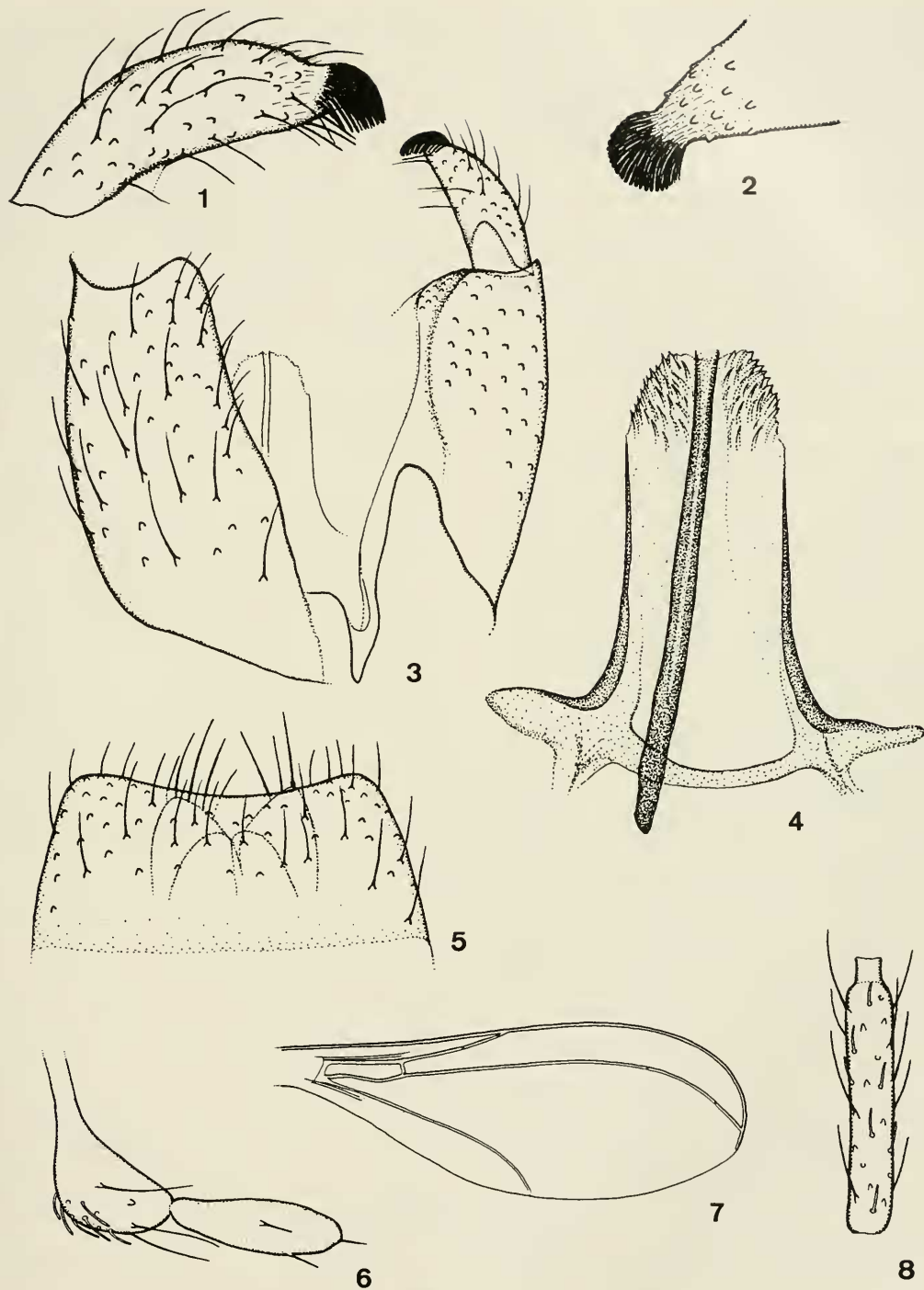
***Amedia floridana* Jaschhof, new species**  
(Figs. 1–8)

**Male.**—Body size: 2.5–3.0 mm. **Head:** High but short, appearing flattened frontally. Postfrons bilobed, slightly prominent, with a few setae. Postcranium with sparse, scattered, long setae and no postocular bristles. Distinct suture present posterior to eye bridge and reaching occipital foramen, vertex on both sides of suture prominent. Clypeus not developed, region between insertion of antennae and mouth-parts flat and bare. Ocelli lacking. Compound eyes small; eye bridge short, strongly restricted and without facets at vertex. Antenna: scape of same size as pedicel; with 14 flagellomeres, each successively longer; fourth flagellomere (Fig. 8) with very short neck, node long, cylindrical, with irregularly scattered short setae and inconspicuous sensory hairs, fully pubescent. Palpus (Fig. 6) 2-segmented, segment 1 stemmed, with short sensory

hairs ventrally and a few setae laterally, segment 2 slenderer and mostly longer than first regardless of the stem, with a few short setae. **Thorax:** Scutum with 2 lateral and 2 dorsocentral sparse rows of long setae; scutum with smooth transition into scutellum. Tarsomeres without scale-like setae. Claws very slightly bent, with minute teeth. Empodia reduced to a few hairs. Halteres with very long and narrow stem, latter with sparse setae, knob with a row of setae in prolongation of stem. Wings (Fig. 7) long and narrow; Sc extending beyond level of rs; C without distinct break near wing apex;  $R_1$  6–7 times as long as rs; M completely lacking; CuA strong, bent distally; CuP short, close to CuA; membrane with a few macrotrichia peripherally; macrotrichia sparsely scattered dorsally on R,  $R_1$ ,  $R_5$  and ventrally on  $R_5$ . Pattern of sensory pores:  $R_1$  1–2, rs 1 (sometimes on  $R_5$  proximally),  $R_5$  2–3 distally. Anal area with straight margin. **Abdomen:** Tergites and sternites with long, sparsely scattered setae concentrated along margins. Terminalia: gonocoxites (Fig. 3) with short setae ventrally, fused only in proximal fifth by a membranous link, dorsal transverse bridge with long proximolateral apodemes; gonostylus (Fig. 1) long, slightly arched, tapering to tip (noticeable from above, Fig. 2), with a comb-like structure apically and about 5 inconspicuous ventral spines subapically; genital rod (Fig. 4) simple, narrow and sclerotized; tegmen (Fig. 4) narrow and parallel-sided, parameral apodemes swept ventrally, with basal transverse bridge, membranous on apical third and with many short hyaline "spines"; tergite 9 (Fig. 5) plate-like, nearly trapezoidal, distal margin straight or slightly emarginate, with short, scattered setae; tergum 10 free, large, bilobed, with long apical setae and covered with setulae; sternum 10 about half length of tergum 10, bilobed, with long apical setae and covered with setulae.

**Female.**—unknown.

**Types.**—Holotype ♂, I-18-1964, swept from *Medicago sativa*, Gainesville, Florida,



Figs. 1-8. *Amedia floridana*, male. 1, Gonostylus. 2, Gonostylus (detail of tip, from above). 3, Genitalia (partial, left side: ventral, right side: dorsal). 4, Tegmen and genital rod (ventral). 5, Tergite 9 and tergum 10 and sternum 10 (dorsal). 6, Palpus. 7, Wing. 8, Fourth antennal flagellomere.

U.S.A., F.W. Mead, deposited in National Museum of Natural History, Washington, D.C. Paratypes: 8 ♂, same data as holotype; 1 ♂, gopher tortoise burrow, undated, Hollister, Putnam Co., Florida, U.S.A., E.G. Milstray.

Remarks.—This unique species stands out by the combination of characters discussed under the generic description. It is further remarkable by its frontally flattened head, the lack of ocelli, and the reduced mouthparts and wing macrotrichia.

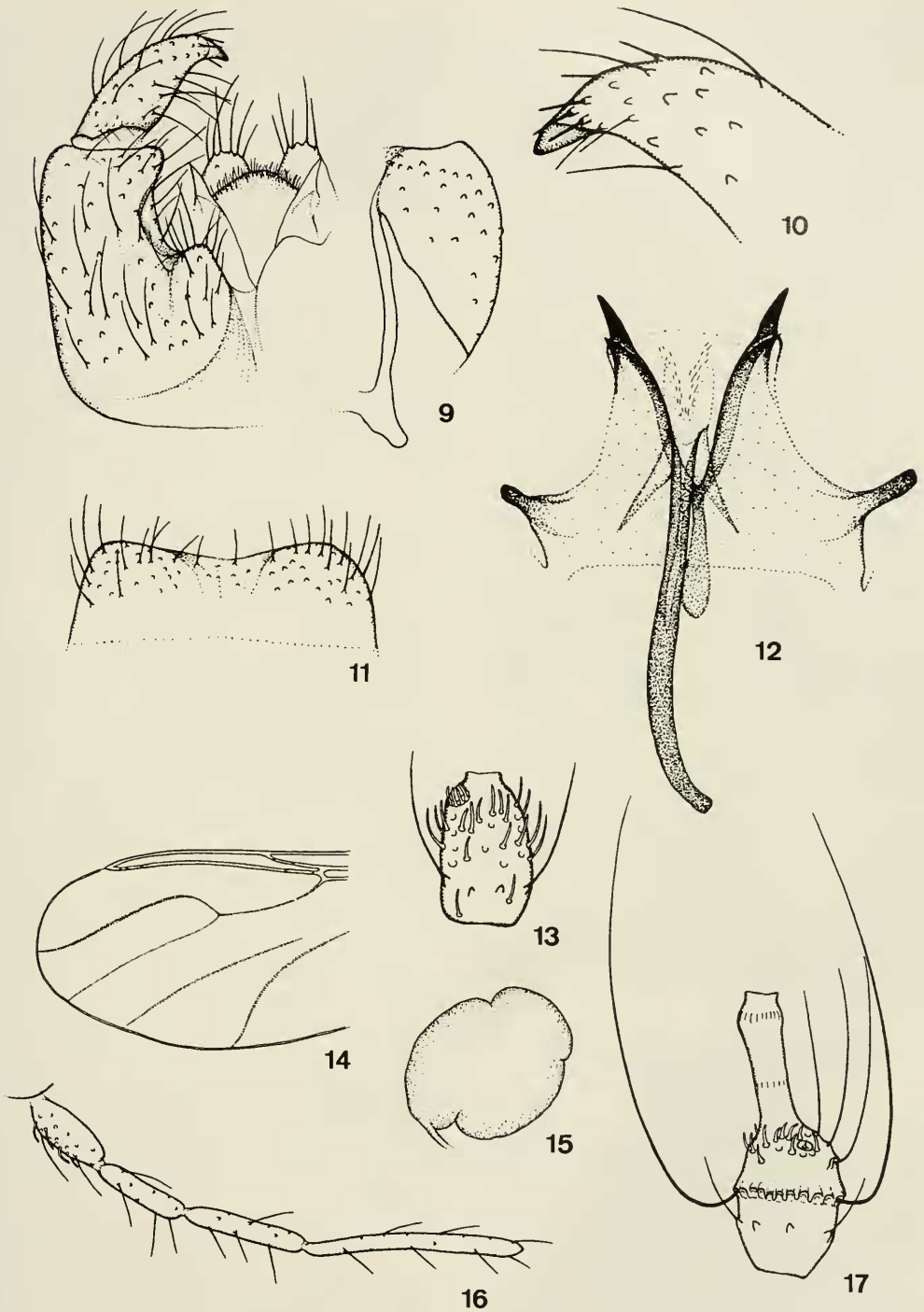
Etymology.—The name *floridana* refers to Florida, the type locality.

***Allarete bicornuta* Jaschhof, new species**  
(Figs. 9–17)

Male.—Body size: 2.5–2.7 mm. *Head*: Postfrons without setae. Eye bridge short and 4 facets long, a little constricted at vertex. Postcranium densely covered with short setae. Scape markedly larger than pedicel. Antenna with 14 flagellomeres; first flagellomere on one side covered with short sensory hairs along the whole length of node; neck of fourth flagellomere (Fig. 17) slightly shorter than node; node with 1 basal whorl of setae, mesally 1 complete crenulate whorl of extremely long setae and 2–3 short crenulate rows of long setae, distally many short sensory hairs and 1–2 large sensory spines; distal flagellomeres with gradually fewer and shorter sensory hairs. Palpus (Fig. 16) 4-segmented; segments increasingly longer distally; first segment with short sensory hairs; all segments with setae. *Thorax*: Scutum with 2 lateral and 2 dorsocentral rows of long setae. Tarsomeres without scale-like setae. Claws very short and strong, slightly arcuate; basally with several teeth, each successively longer. Empodia reduced to some hairs. Halter with setae on basal half. Wing (Fig. 14): h present; Sc not reaching level of rs;  $R_1$  as long as in other *Allarete* species; rs and r-m very short; M-fork markedly longer than stem of  $M_{1+2}$ ;  $M_1$  broader and darker than  $M_2$ , both veins parallel-sided, diverging only distally; CuA slightly sinu-

ous distally; CuP present; A long, apparent only in central section. Macrotrichia present on all veins with exception of h, rs, r-m and M; macrotrichia on both sides of  $R_5$ ,  $M_{1+2}$  (distally) and M-fork (proximally). Pattern of sensory pores:  $R_1$  2(–3),  $R_5$  2 proximally, 3 distally. Anal lobe strongly convex. *Abdomen*: Tergites and sternites with long setae. Terminalia: gonocoxites (Fig. 9) with relatively short setae ventrally except on basal third and membraneous medial link, with ventral lobes, dorsal gonocoxal apodemes strong and connected by a weak transverse bridge; gonostylus (Figs. 9, 10) long, broadest at base, tapering to tip, the distal fourth arched inwards, with finger-nail-like apical tooth and 4–5 short spines subapically; genital rod (Fig. 12) sclerotized, with membraneous pubescent cap apically, 2 inconspicuous acute projections from apex of genital rod directed proximolaterally; tegmen (Fig. 12) membraneous, parameral apodemes sclerotized and directed ventrally, centrally with an y-shaped sclerotization, both distal sides of y with double-toothed apex; tergite 9 (Fig. 11) wide, nearly membraneous, densely scattered with setae, distal margin straight; tergum 10 large, free, bilobed, with long and strong setae dorsally and apically; sternum 10 obviously onelobed, with rounded distal margin and covered with setulae.

Female.—Body size: 3.0–4.0 mm. *Head*: Antenna: scape little smaller than pedicel; with 9 flagellomers, the last constricted and with small second node; first flagellomere with 2 small depressions with short sensory hairs (such sensory depressions slightly noticeable also on second to seventh flagellomeres); fourth flagellomere (Fig. 13) barrel-shaped, with very short neck, 1 whorl of long setae in basal third and many short sensory hairs. *Thorax*: Tarsomeres of forelegs with many short, spine-like setae on the ventral surface (found distally on first tarsomere) and indistinct on tarsomeres of other legs. *Abdomen*: With 1 large, flattened, poorly sclerotized spermatheca (ir-



Figs. 9-17. *Allarete bicornuta*. 9, Male terminalia (partial, left side: ventral, right side: dorsal). 10, Gonostylus (detail of tip, dorsal). 11, Tergite 9 (dorsal). 12, Tegmen and genital rod (ventral). 13, Female fourth antennal flagellomere. 14, Male wing (partial). 15, Spermatheca. 16, Male palpus. 17, Male fourth antennal flagellomere.

regular margin possibly resulting from deformity, Fig. 15).

Types.—Holotype ♂, light trap, VII-16-1958, Cochise Stronghold, Dragoon Mountains, Arizona, U.S.A., C.W. O'Brien, deposited in National Museum of Natural History, Washington, D.C. Paratypes: 1 ♂ and 5 ♀, same data as holotype.

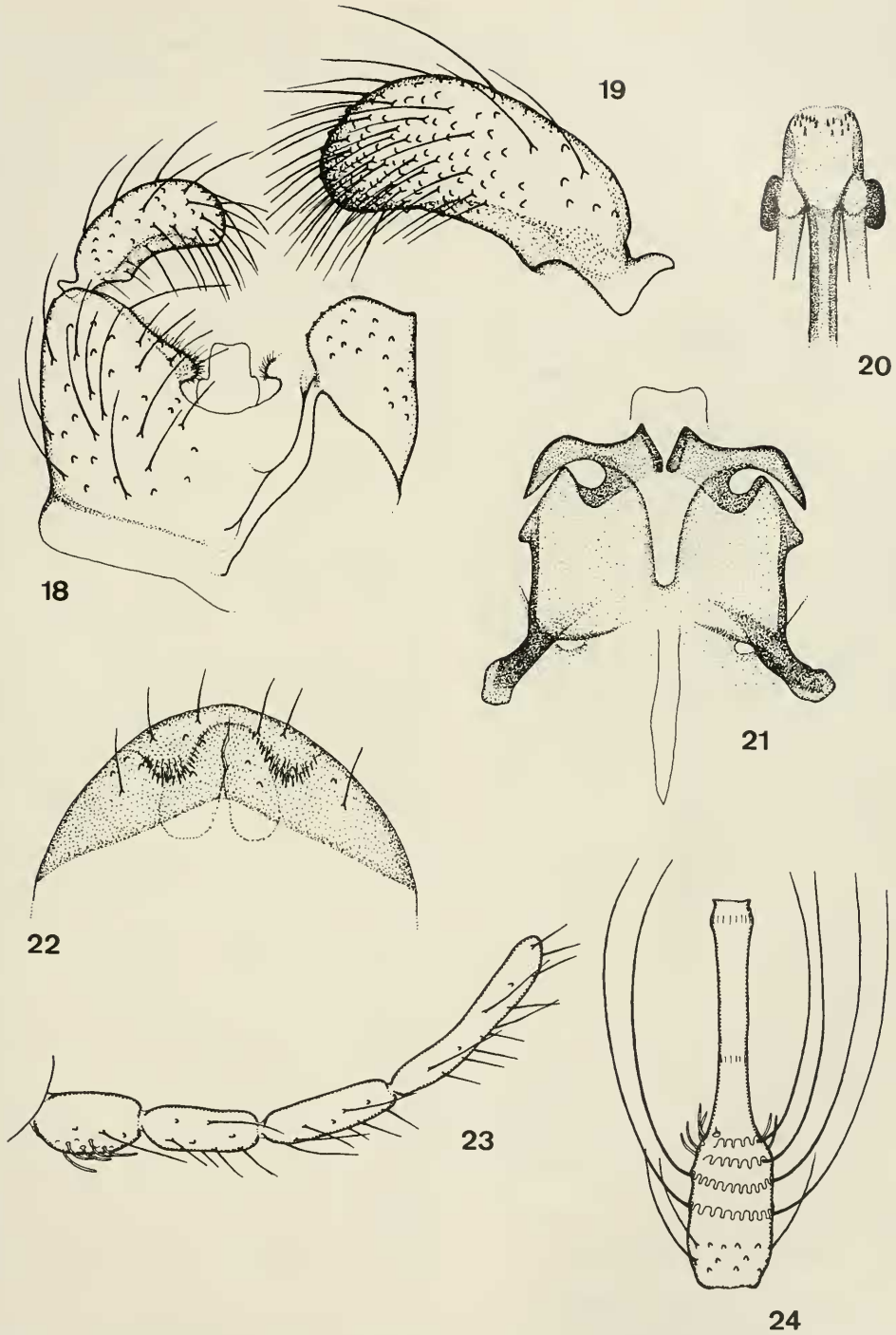
Remarks.—*Allarete* was established by Pritchard (1951) for those *Lestremiini* with a medial fork with branches both being of same vein width. This character is of little value, since within all species included in *Allarete*  $M_1$  is little broader and darker than  $M_2$  (even if not so clearly indicated as in some *Lestremia* or *Anaretella* species). Probably *Allarete* is not a natural group of species, but, in the present sense includes species with these plesiomorphic wing characters: the long  $R_1$  and A; macrotrichia on both sides of  $R_5$ ,  $M_{1+2}$  including fork and A; and 2 (not 1) sensory pores on  $R_5$  proximally. We are not able at present to place all *Lestremiini* with confidence into natural groups. Therefore the new species is referred to *Allarete* with reservation and for lack of alternatives. The structure of the tegmen is unusual compared with the other congeners and within the tribe, as is the occurrence of a spermatheca.

Etymology.—The name *bicornuta* is an adjective and means "with two horns" and refers to the distal projections of the tegmen.

*Neurolyga longipes* Jaschhof,  
new species  
(Figs. 18–24)

Male.—Body size: 3.5 mm. *Head*: Postfrons without setae. Eye bridge with a few scattered facets laterally, medial eye portion to 4 facets long. Occiput sparsely covered with setae posteriorly. Postgenae with long setae, 1 inconspicuous row of 4–5 postocular bristles. Scape clearly larger than pedicel. Antenna with 12 flagellomeres; neck of fourth flagellomere (Fig. 24) clearly longer than node; node with 2 irregular whorls of setae basally, 1 complete and 3 incom-

plete crenulate whorls of long setae (distal flagellomeres with 2 complete crenulate whorls) and groups of short sensory hairs distally. Palpus (Fig. 23) long, 4-segmented, segments gradually increasing in length, first segment with short sensory hairs inside, all segments with setae. *Thorax*: Scutum with 2 lateral and 2 dorsocentral sparse rows of long setae. Legs extremely long, clearly longer than body. Claws arched at right angle, distal side longer than proximal, toothed. Empodia longer than claws. Halteres densely covered with short setae. Wings longer than body; Sc slightly reaching level of rs; rs short,  $R_1$  10–11 times as long as rs;  $M_{1+2}$  apparent also distally;  $CuA_2$  not reaching wing margin; CuP present, nearly  $\frac{3}{4}$  as long as  $CuA_{1+2}$ . Macrotrichia on membrane and on R,  $R_1$ ,  $R_5$  and r-m (only distally). Pattern of sensory pores:  $R_1$  3–4, rs 1,  $R_5$  1 proximally, 1–3 medially/distally. Anal lobe clearly convex. *Abdomen*: Tergites sparsely covered with long setae, more concentrated laterally. Sternites densely covered with long setae. Terminalia: gonocoxites (Fig. 18) with a widened base without setae ventrally, otherwise with long setae except a broad stripe along medial line, distal margin with u-shaped neckline, inner bridge of gonocoxites with remarkably long setae; gonostylus (Fig. 19) long, slightly arched inwards, rounded distally, with long setae very densely covering distal third; genital rod (Fig. 20) strongly sclerotized, apically widened to membranous head with minute hairs, mouth of sperm ducts apparently leading into head of genital rod proximolaterally; tegmen (Fig. 21) with long and sclerotized parameral apodemes, nearly parallel-sided, separated along two thirds of medial line, distolaterally with 2 characteristic angled and acute projections directed laterally; tergite 9 (Fig. 22) plate-like, slightly sclerotized, distal margin broadly rounded, distally with bilobed projection with strong, stiff, inwardly directed hair; tergum 10 fused with tergite 9, bilobed and covered with setulae.



Figs. 18–24. *Neurolyga longipes*, male. 18, Terminalia (partial, left side: ventral, right side: dorsal). 19, Gonostylus (dorsal). 20, Tip of genital rod. 21, Tegmen (ventral). 22, Tergite 9 and tergum 10 (dorsal). 23, Palpus. 24, Fourth antennal flagellomere (anterior).

Female.—unknown.

Types.—Holotype ♂, sticky trap, II-25-1976, Willamette National Forest, Oregon, U.S.A., Voegtlin & Christy, deposited in National Museum of Natural History, Washington, D.C. Paratype: 1 ♂, same data as holotype.

Remarks.—This new species is unique among the *Neurolyga* (formerly *Cordylomyia*, see below) in that the body size of the adults is much larger in relation to other species of this genus. The legs, antennae, palpi and wings are long in proportion to body size. The occurrence of CuP and a distinctly convex anal lobe are plesiomorphic conditions usually not appearing within the Micromyidi. The male genitalia support the view that *Neurolyga* and *Campylomyza* form a monophyletic group. They share the medially divided tegmen with sclerotized projections, and the over all shape of the aedeagus corresponds as well. This species is referred to *Neurolyga* because of the absence of setae on the katepisternite and the lack of angled macrotrichia on wing membrane, the presence of both being synapomorphies of *Campylomyza*.

Remark on nomenclature.—I studied the remains of the original material of *Neurolyga fenestralis* Rondani, 1840, the type species of *Neurolyga*, in the Rondani collection. As a result, I consider *N. fenestralis* to be identical with *Cordylomyia coprophila* Felt, 1911, the type species of *Cordylomyia*. Consequently, *Neurolyga* is no longer considered a junior subjective synonym of *Campylomyza* Meigen, 1818, as proposed by former authors, and *Cordylomyia* Felt, 1911, is a junior subjective synonym for *Neurolyga* Rondani, 1840.

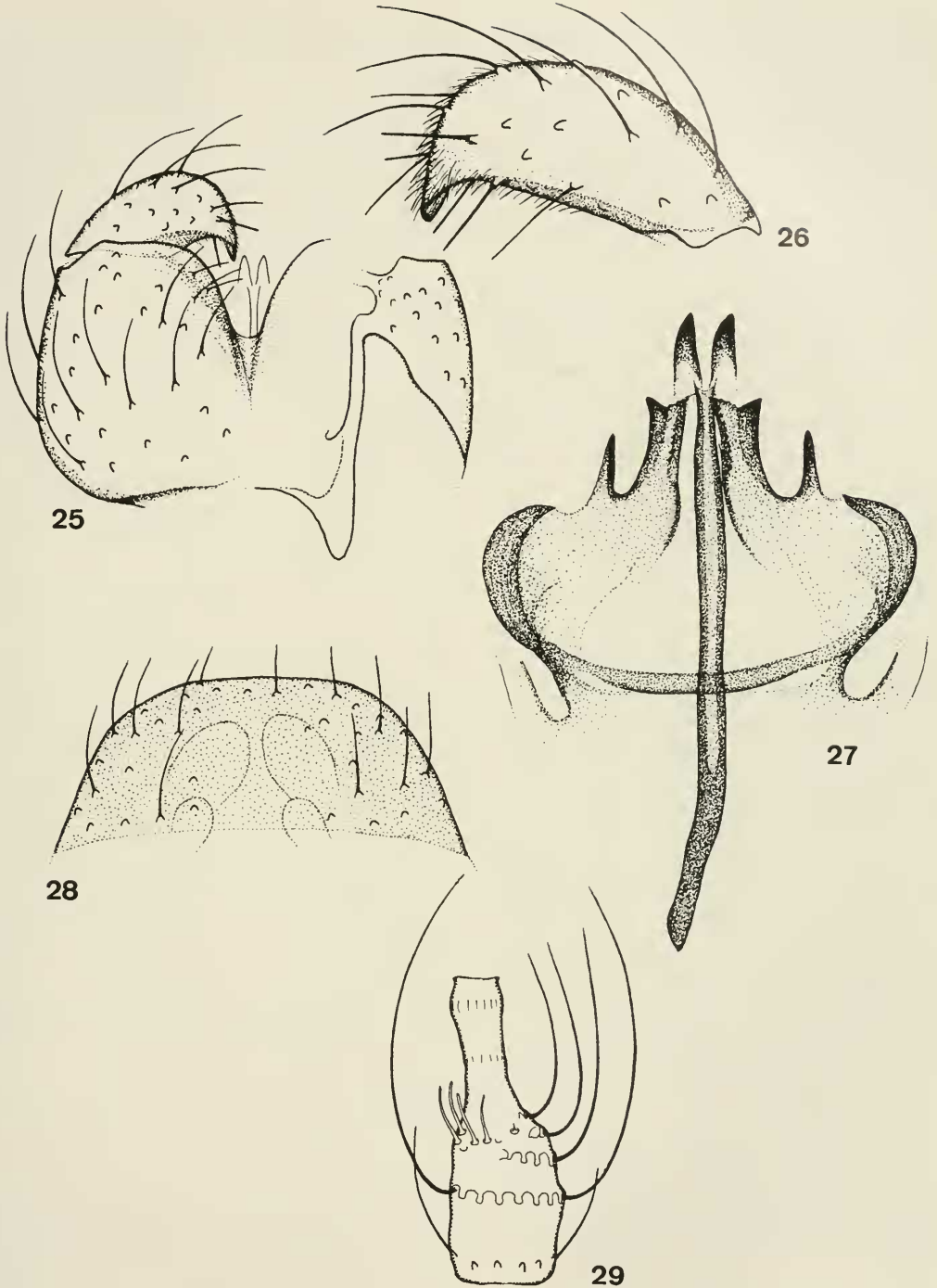
Etymology.—The name *longipes* is a noun in apposition meaning long legs.

***Neurolyga pritchardi* Jaschhof,  
new species  
(Figs. 25–29)**

Male.—Body size: 1.4–1.7 mm. *Head*: Postfrons without setae. Eye bridge 1 sparse row of facets long laterally, medial eye por-

tion to 3–4 facets wide. Occiput sparsely covered with setae posteriorly; postocellar bristles indistinct. Postgenae sparsely covered with long setae, with a short row of about 3 postocular bristles. Antenna with 12 flagellomeres; neck of fourth flagellomere (Fig. 29) little shorter than node; node with 1 whorl of basal setae, 1 complete and 3 incomplete crenulate whorls of long to very long setae and groups of short sensory hairs distally. Palpus 4-segmented; last segment longest; first segment with short sensory hairs inside, very few sensory hairs also on second and third segments; all segments with setae. *Thorax*: Scutum with 2 lateral and 2 dorsocentral sparse rows of long setae. Tarsomeres without scales. Claws arched at right angle and toothed. Empodia reaching  $\frac{1}{2}$  to  $\frac{3}{4}$  of claw length. Halter densely covered with short setae. Wing: Sc not reaching level of rs;  $R_1$  3 times as long as rs;  $M_{1+2}$  very faint;  $CuA_2$  short, not reaching wing margin. Macrotrichia covering membrane and on R,  $R_1$ , r-m,  $R_5$  and  $CuA_{1+2}$ . Pattern of sensory pores:  $R_1$  3, rs 1, r-m 1,  $R_5$  1 medially/distally. *Abdomen*: Tergites with a few setae dorsally, more densely covered with setae laterally. Sternites with long setae. Terminalia: gonocoxites (Fig. 25) covered with long setae ventrally with exception of a stripe along the medial line, distal margin with narrow u-shaped neckline extending to more than  $\frac{1}{3}$  of gonocoxite length, dorsal transverse bridge with long apodemes proximolaterally; gonostylus (Fig. 26) arched inwards in distal third, with fingernail-like tooth apically surrounded by 4 long inconspicuous spines; genital rod (Fig. 27) long and strongly sclerotized, widened and forked apically, tips of fork sclerotized; tegmen (Fig. 27) broadest at base, parameral apodemes clearly swept ventrally, on both sides with narrow acute projection directed ventrally, distally 2 notched projections obviously separated by a gap; tergite 9 (Fig. 28) large, plate-like, distal margin broadly rounded, with long scattered setae; tergum 10 fused with tergum 9, bilobed, densely





Figs. 25–29. *Neurolyga pritchardi*, male. 25, Terminalia (partial, left side: ventral, right side: dorsal). 26, Gonostylus (ventral). 27, Tegmen (ventral). 28, Tergite 9 and tergum 10 and sternum 10 (dorsal). 29, Fourth antennal flagellomere.

covered with setulae and a few setae; sternum 10 inconspicuous and covered with short setulae.

Female:—unknown.

Types.—Holotype ♂, IV-27-1947, Inverness, California, U.S.A., A.E. Pritchard, deposited in National Museum of Natural History, Washington, D.C. Paratype: 1 ♂, IV-27-1947, Lagunitas, California, U.S.A., A.E. Pritchard.

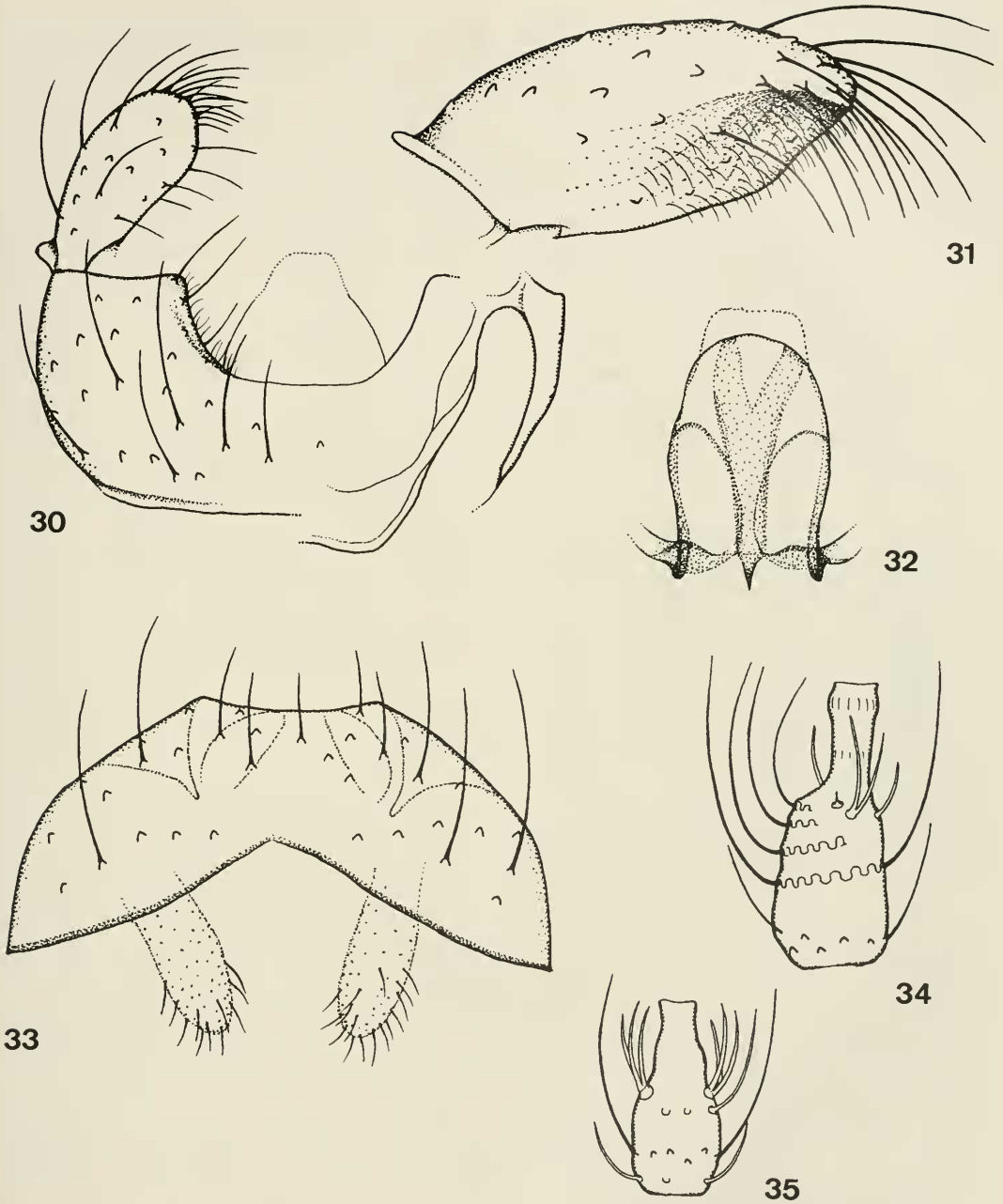
Remarks.—Within the genus the new species is unusual for the apical tooth-like structure of the gonostyli. Only one other *Neurolyga* species has that character: *N. subbifida* (Mamaev 1963) described from European Russia. I was not able to obtain material for comparative study and the description of *subbifida* is insufficient. The sketchy available figure showing terminalia (Mamaev 1963: 452, Fig. 4 g) indicates that both species are similar in the apex of tegmen and genital rod as well. The tegmen of *N. subbifida* is described as having two diverging teeth and two further teeth of genital rod between them. This is also the case in *N. pritchardi*, but the tegmen of *N. pritchardi* has additional lateral acute projections directed ventrally. Recently I was informed by B. M. Mamaev, that *N. pritchardi* is not identical with *N. subbifida*, a decision being founded on a comparison of *subbifida* with my drawings of *pritchardi*. The new species is separated from the congeners by the short empodium and the pattern of sensory pores on wing veins: usually *Neurolyga* species have 3 pores on  $R_1$ , 1 on  $r_s$ , 1 on  $R_5$  proximally and 2 medially/distally. The pattern of pores in *subbifida* was not described.

Etymology.—The new species is named to honor A. E. Pritchard, who collected the type material, for his outstanding contributions to the taxonomy of Nearctic lestremines.

***Heterogenella californica* Jaschhof,  
new species  
(Figs. 30–35)**

Male.—Body size: 1.2–1.8 mm. *Head*: Postfrons without setae. Eye bridge 2–3

facets wide. Postcranium - except a stripe behind eye bridge - with long setae, postgenae also with scales. Antenna with 12 flagellomeres; neck of fourth flagellomere (Fig. 34) little to clearly shorter than node; node narrow, with 1 basal whorl of setae, 1 complete and 3 incomplete crenulate whorls of long setae and 5–6 sensory hairs of various length distally (2–4 of the them long and strong, mostly 1 bi- or three-furcated). Palpus 4-segmented; fourth segment longest; first segment with short sensory hairs inside; all segments with setae and scales. *Thorax*: Scutum with 2 dorsocentral and 2 lateral sparse rows of short setae. Tarsomeres with setae and broad scales. Claws crescent-shaped, without teeth. Empodia only just as long as the claws. Halter covered with narrow scales. Wing: Sc not reaching level of  $r_s$ ;  $R_1$  2.5–3.5 times as long as  $r_s$ ;  $M_{1+2}$  obsolete distally;  $CuA$ -fork very acute;  $CuA_2$  not reaching wing margin; membrane densely covered with macrotrichia and sparsely on  $R$ ,  $R_1$  proximally and  $CuA_{1+2}$ . Only 1 (not 2 as usual) sensory pore on  $R_5$  medially/distally. *Abdomen*: Tergites with sparse row of setae dorsally and small patch of setae laterally. Sternites with long setae and scales. Terminalia: gonocoxites (Fig. 30) with long setae ventrally, distal margin with broadly u-shaped neckline, without projection on both sides of neck; gonostylus (Fig. 31) widest in distal half, clearly excavated on inside distally (noticeable only in lateral view), distal third dorsoventrally flattened and remarkably densely and strongly covered with setae, apex rounded; the base of the genital rod (Fig. 32) sclerotized, otherwise membranous and bifurcated distally; tegmen (Fig. 32) membranous, more or less parallel-sided, distal margin broadly rounded; tergite 9 (Fig. 33) plate-like and nearly trapezoidal (proximal margin seems to be excavated, but, this results from deformity by cover glass pressure), distolaterally 2 pointed lobes covered with setulae and directed inwards; tergum 10 fused with tergite 9 and bilobed, densely covered with long setulae;



Figs. 30-35. *Heterogenella californica*. 30, Male terminalia (partial, left side: ventral, right side: dorsal). 31, Gonostylus (dorsal). 32, Tegmen and genital rod (ventral). 33, Tergite 9 and tergum 10 and sternum 10 (dorsal). 34, Male fourth antennal flagellomere. 35, Female fourth antennal flagellomere.

sternum 10 large, bilobed, densely covered with strong setulae.

Female.—*Head*: Eye bridge shorter than in male; in brachypterous form 1-2 scat-

tered facets long laterally and without facets at the vertex. Antenna with 8 flagellomeres, last flagellomere constricted mesially; fourth flagellomere (Fig. 35) slender, bottle-

shaped, with long neck; node with 1 sparse whorl of short sensory hairs basally, 1 whorl of long setae above that, 1 row of sensory hairs mesally and two 2- to 5-forked sensoria distally. Palpus 3- or 4-segmented. *Thorax*: Macropterous and brachypterous (to nearly apterous) forms occur side by side. Thorax of brachypterous form stunted, mesonotum very sparsely covered with short setae. Stubs of wing as long as thorax or clearly shorter, partly with indistinct venation and some macrotrichia at margin. Tarsomeres also of brachypterous form with broad scales. *Abdomen*: Segments with short setae. 2 small, poorly sclerotized, rounded and flattened spermathecae.

Types.—Holotype ♂, IV-27-1947, Inverness, California, U.S.A., A.E. Pritchard, deposited in National Museum of Natural History, Washington, D.C. Paratypes: 5 ♂ and 5 ♀, from redwood litter, III-18-1953, Oakland, California, U.S.A., W.C. Bentinck.

Remarks.—This is the first record of *Heterogenella* in the Nearctic Region, and *H. californica* is the only known species of the genus with wing reduction. It is remarkable that brachypterous and fully winged females occur simultaneously. The only other known female of *Heterogenella* is that of *H. bigibbata* Mamaev and Berest, resembling *H. californica* in all respects with the exception of the wing reduction. The male terminalia of *H. californica* are characterized by gonostyli widened and excavated inside in distal half and with a dense tuft of long setae apically. All other *Heterogenella* males exhibit a uniform covering with setae of gonostyli.

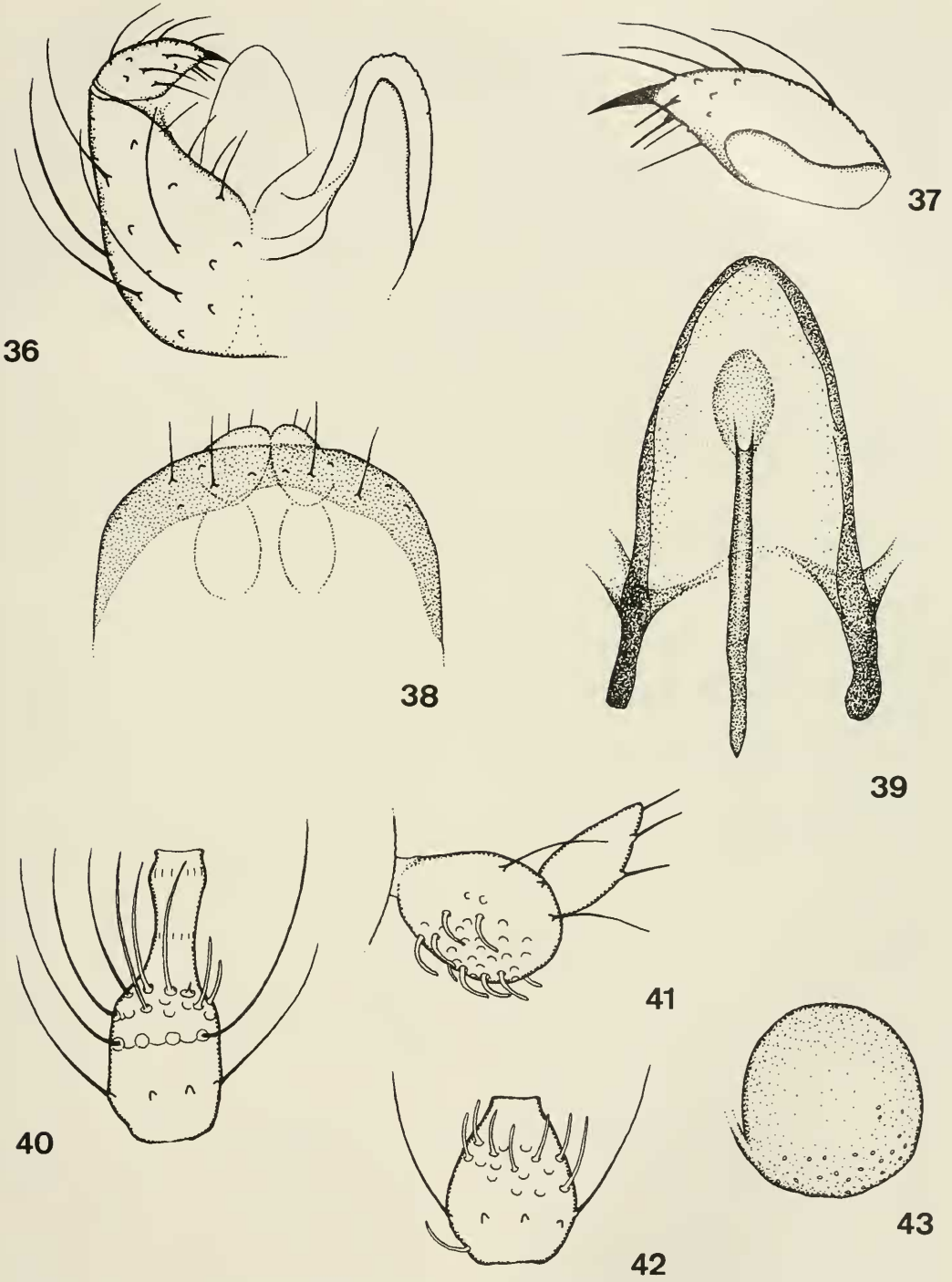
Etymology.—The name *californica* refers to California, the type locality.

***Polyardis occulta* Jaschhof, new species**  
(Figs. 36–43)

Male.—Body length: 1.1 mm. *Head*: Postfrons with 1 strong seta. Eye bridge 1–2 facets long laterally, 2–3 facets at the vertex. Occiput with a few strong postocellar bristles, without setae elsewhere. Postgenae

sparsely covered with long setae. Antenna with 13–15 flagellomeres; neck of fourth flagellomere (Fig. 40) as long as the node or little shorter; node with 1 whorl of long basal setae, 1 complete and 1 incomplete, poorly developed crenulate whorls of long setae mesally and further setae and sensory hairs of various length distally. Palpus (Fig. 41) 2-segmented; first segment enlarged, globular, densely covered with short sensory hairs inside; second segment pointed, shorter and narrower than the first; both segments with a few setae. *Thorax*: Scutum with 2 dorsocentral and 2 lateral sparse rows of short setae. Coxae, femura and tibiae of all legs very strong; tarsomeres without scales. Claws crescent-shaped; untoothed. Empodia as long as claws. Halter sparsely covered with short setae. Wing: Sc not reaching level of  $rs$ ;  $R_1$  1.5 as long as  $rs$ ;  $CuA_2$  strong, but short; wing membrane without macrotrichia,  $R$ ,  $R_1$  and  $R_5$  with a few macrotrichia only. *Abdomen*: Tergites with a few setae only laterally. Sternites densely covered with long setae. Terminalia: gonocoxites (Fig. 36) with long to very long setae ventrally, distal margin with broadly v-shaped neckline; gonostyli (Fig. 37) small, broadest in proximal third, sharply tapering to tip, with 1 long, slender apical tooth and 2 inconspicuous ventral spines subapically; genital rod (Fig. 39) slender, opening in distal fifth, somewhat widened (ovoid) and lightly sclerotized apically; tegmen (Fig. 39) shield-shaped, with rounded apex; tergite 9 (Fig. 38) with narrow sclerotized posterior margin and scattered setae; tergum 10 fused with tergite 9, bilobed, densely covered with setulae and with a few fine setae; sternum 10 hidden, bilobed and covered with setulae.

Female.—Body size: 1.2 mm. *Head*: Eye bridge 1–2 rows of scattered facets long. Postcranium sparsely covered with setae. Antenna with 9 flagellomeres; first flagellomer with field of many short sensorial hairs on prolonged basis; fourth flagellomer (Fig. 42) tapering in distal half, with inconspicuous neck; node with a few sensory



Figs. 36-43. *Polyardis occulta*. 36, Male terminalia (partial, left side: ventral, right side: dorsal). 37, Gonostylus (dorsal). 38, Tergite 9 and tergum 10 and sternum 10 (dorsal). 39, Tegmen and genital rod (ventral). 40, Male fourth antennal flagellomere. 41, Male palpus. 42, Female fourth antennal flagellomere. 43, Spermatheca.

hairs and 1 whorl of setae basally and many short sensory hairs apicad of the setae. First segment of palpi stronger enlarged than in male. *Thorax*: Stunted in size; mesonotum with a few short setae only. Brachypterous; wings noticeable as short stubs without venation. Fifth tarsomere of forelegs twice as long as fourth. *Abdomen*: Setae very short. 1 large, sclerotized, disc-shaped spermatheca (Fig. 43), on one side with many small pores.

Types.—Holotype ♂, shrubby meadow, VII-15 to VIII-28-1977, 18 km east of Gananogue, Ontario, Canada, Dondale & Redner, deposited in National Museum of Natural History, Washington, D.C. Paratypes: 2 ♂ and 2 ♀, same data as holotype.

Remarks.—The species represents the third case of brachyptery in the female within *Polyardis* beside *P. silvalis* (Rondani) and *P. recondita* (Lengersdorf) (Jaschhof, in prep.). Like other wing reduced species in different genera, *P. occulta* exhibits characters frequently connected with brachyptery or aptery beside the remarkable reduction of the thorax. These are the reduced vestiture on the head and mesonotum, the reduced number of facets of the eye bridge, shortened palpi and partially broadened legs. The winged male is partly affected as well, not only by the shortened palpi, but, also by a reduced vestiture with macrotrichia on the wing and the poorly developed crenulate whorls on the flagellomeres. The new species is the only *Polyardis* species with 2-segmented palpi, an exceptional character within the whole subfamily Lestremiinae. The male genitalia are of the usual type and similar to the congeners, but the gonostyli are small and sharply tapered with a longer and slenderer apical tooth compared to other species. In addition, the genital rod opens in the distal fifth and exhibits an ovoid widening apically.

Etymology.—The name *occulta* is an ad-

jective and means occult, referring to the combination of exceptional characters, especially in female sex.

Remark on nomenclature.—*Polyardis* Pritchard, 1947 is not a junior subjective synonym of *Campyloneura* Lengersdorf, 1939, as I previously considered it to be (Jaschhof and Menzel 1995). Recently I was informed by Mr. K. Voigt, Ettlingen, that *Campyloneura* is a preoccupied name (by *Campyloneura* Fieber, 1860, in Miridae, Heteroptera).

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